

FIG. 1

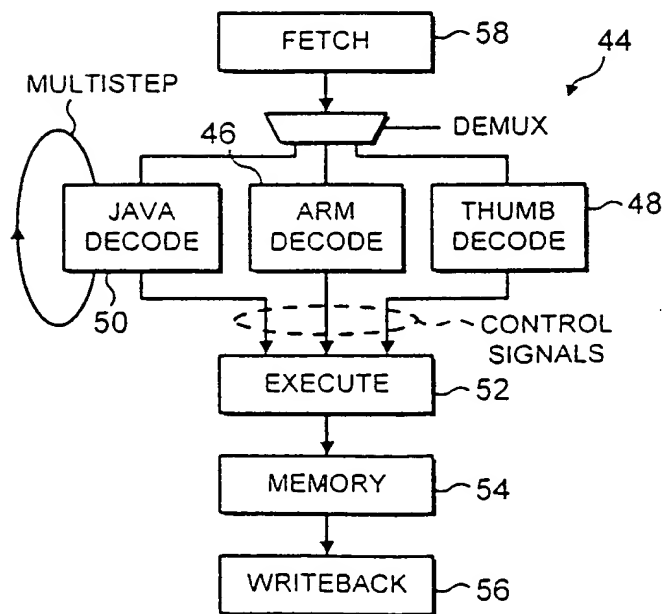


FIG. 2

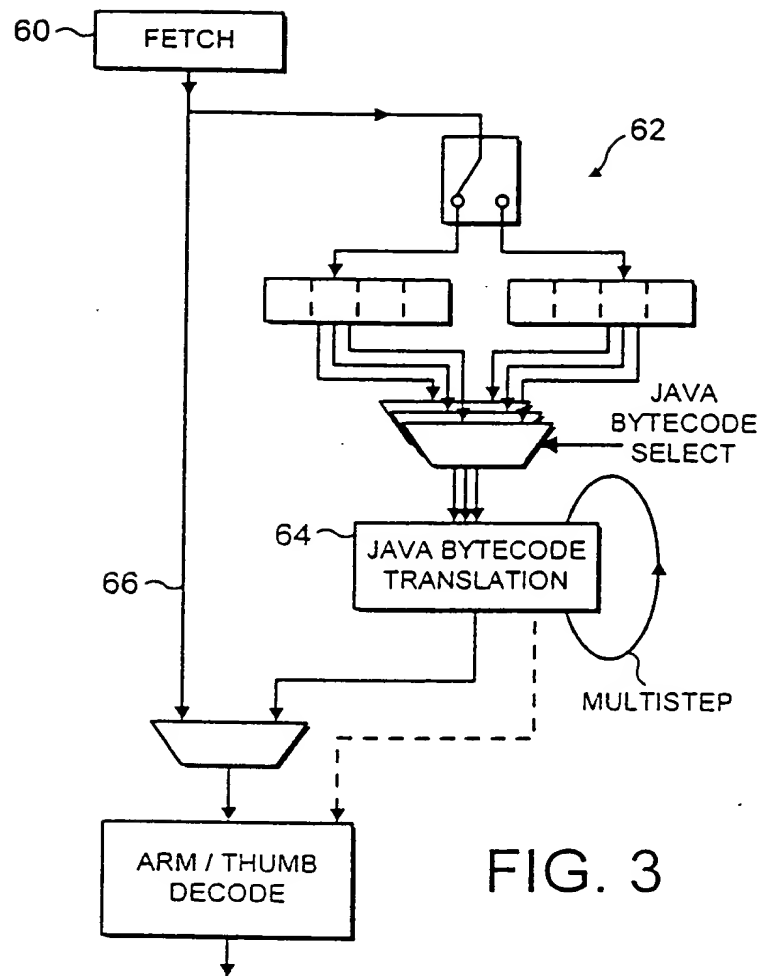


FIG. 3

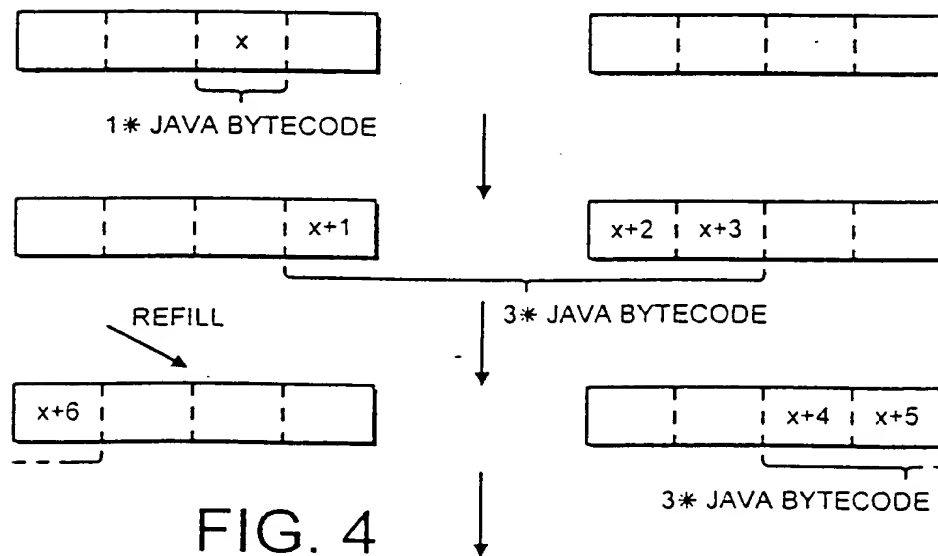


FIG. 4

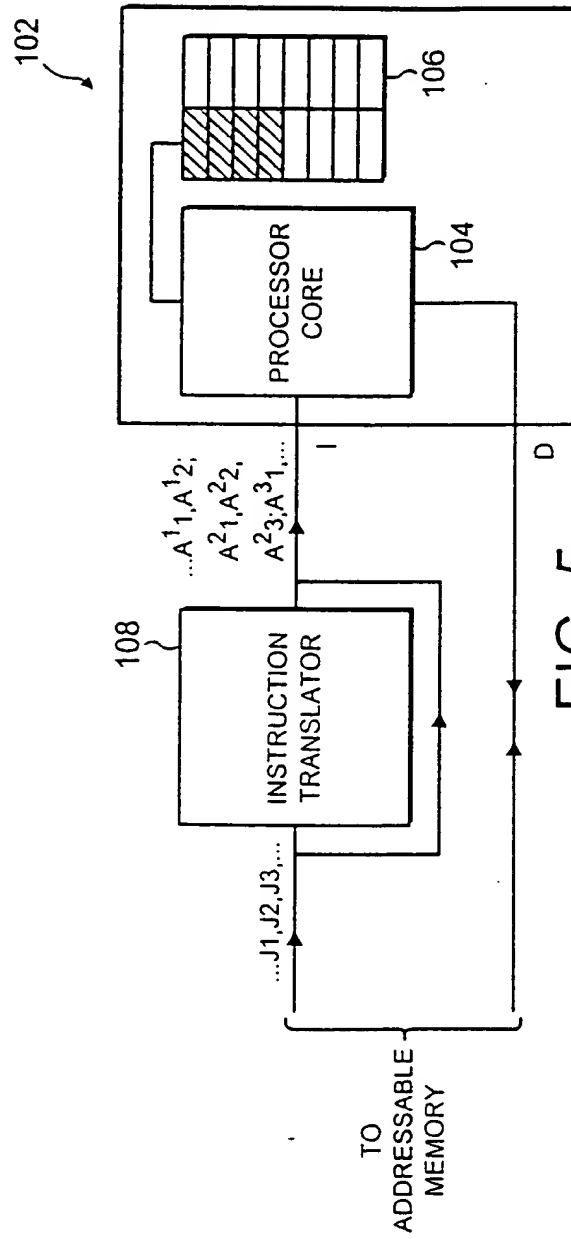


FIG. 5

| JAVA INSTRUCTION   | iadd<br>(RF=2, RF>0)           | iadd<br>(RF=2, RF>1)         | iadd<br>(SA=-1)            |
|--------------------|--------------------------------|------------------------------|----------------------------|
| ARM INSTRUCTION(S) | ↑ LDR R0[RStack, #4]!<br>(POP) | LDR R3[RStack, #4]!<br>(POP) | ADD R3, R3, R0             |
| STATE              | 00000                          | 00100                        | 01000                      |
| R0                 | E                              | SOA TOS                      | SOA TOS                    |
| R1                 | E                              | E                            | E                          |
| R2                 | E                              | E                            | E                          |
| R3                 | E                              | E                            | SOB TOS-1<br>(SOA+SOB) TOS |

| JAVA INSTRUCTION | lload <sup>1</sup><br>(RF=0, RE>2)         | lload <sup>2</sup><br>(RF=0, RE>2) | lload <sup>2</sup><br>(RF=0, RE=2)         |
|------------------|--------------------------------------------|------------------------------------|--------------------------------------------|
| ARM INSTRUCTIONS | ↑ LDR R1,[Rvars, #4]<br>LDR R0,[Rvars, #0] | ↑ STR R3[RStack, #4]<br>(PUSH)     | ↑ LDR R3,[Rvars, #4]<br>LDR R2,[Rvars, #0] |
| STATE            | 00000                                      | 00100                              | 01000                                      |
| R0               | E                                          | SOC TOS-1                          | SOC TOS-3                                  |
| R1               | E                                          | SOD TOS                            | SOD TOS-2                                  |
| R2               | E                                          | E                                  | SOE TOS-1                                  |
| R3               | (SOA+SOB) TOS                              | (SOA+SOB) TOS                      | SOF TOS                                    |

FIG. 6

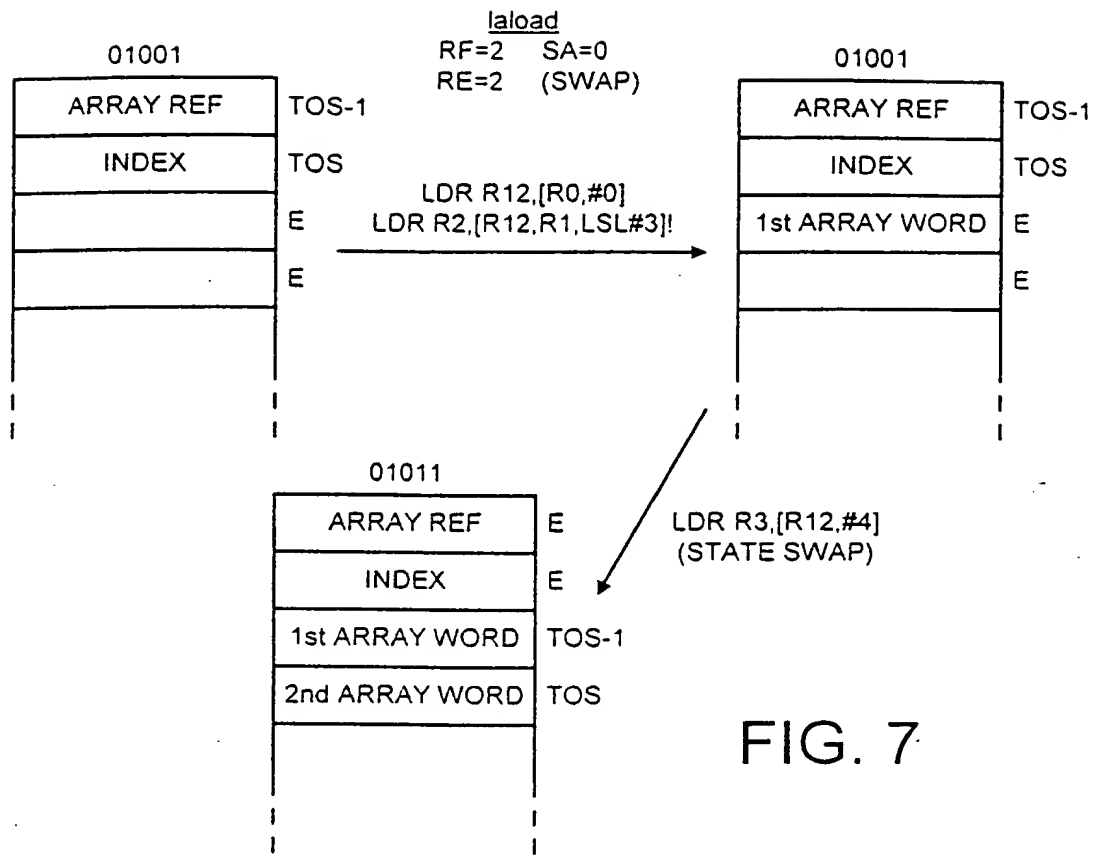


FIG. 7

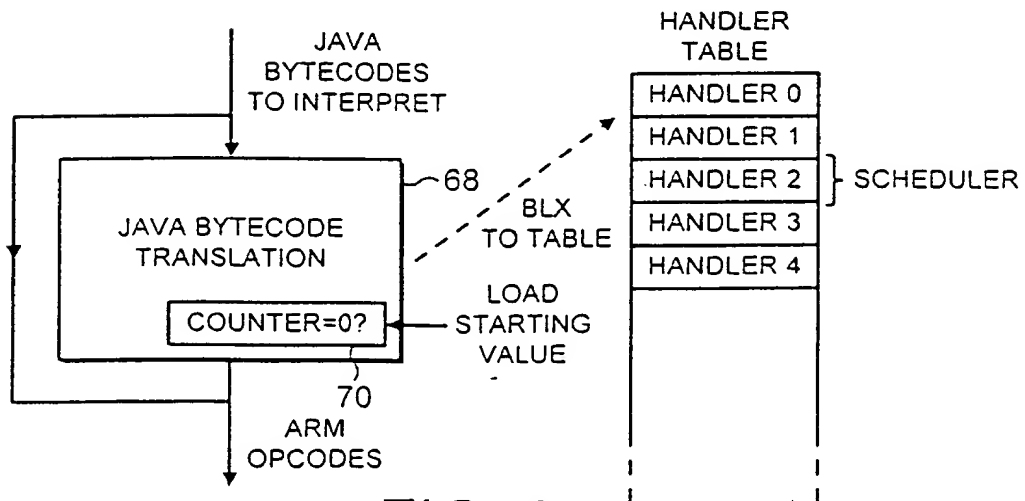


FIG. 9

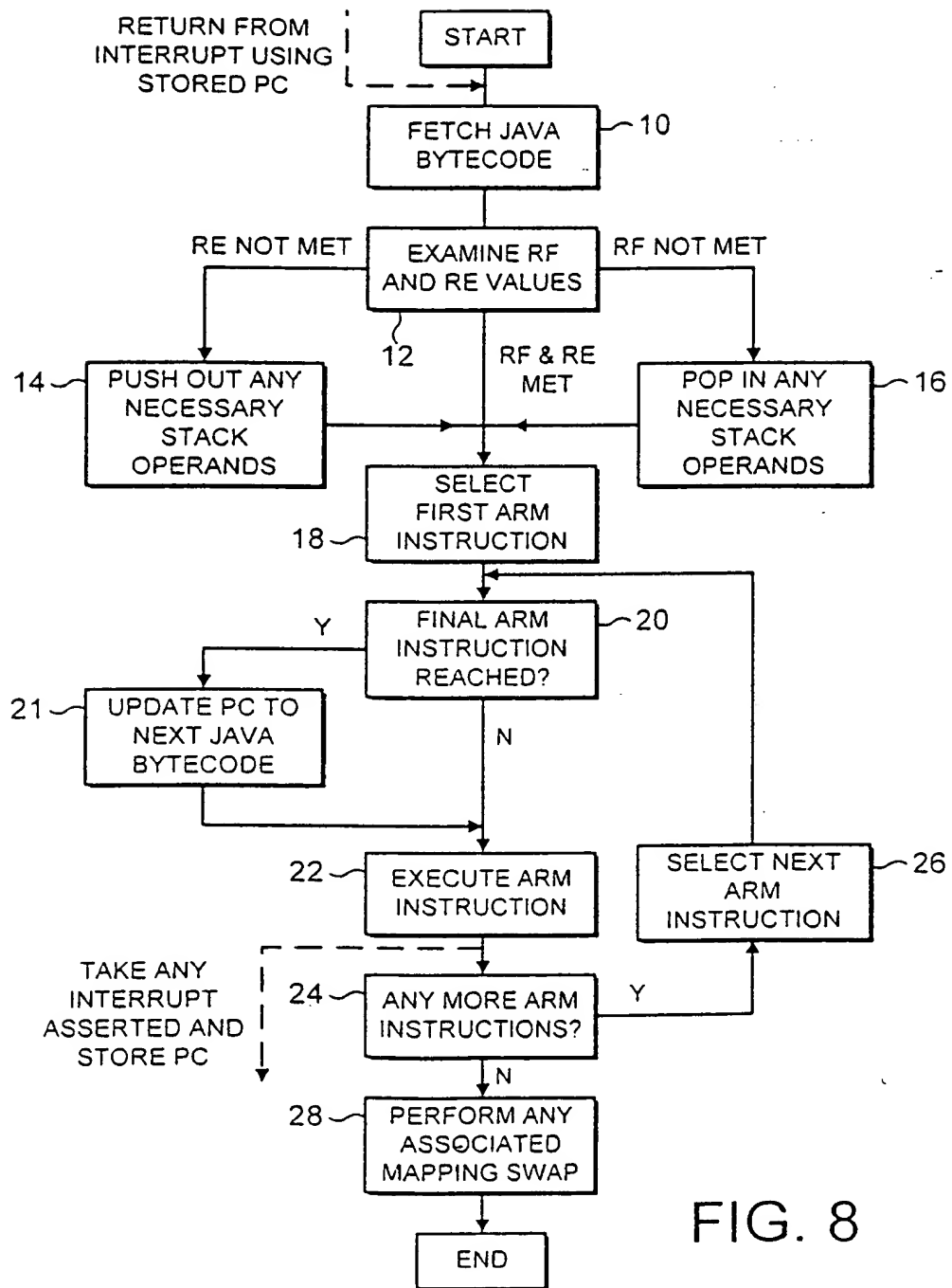


FIG. 8

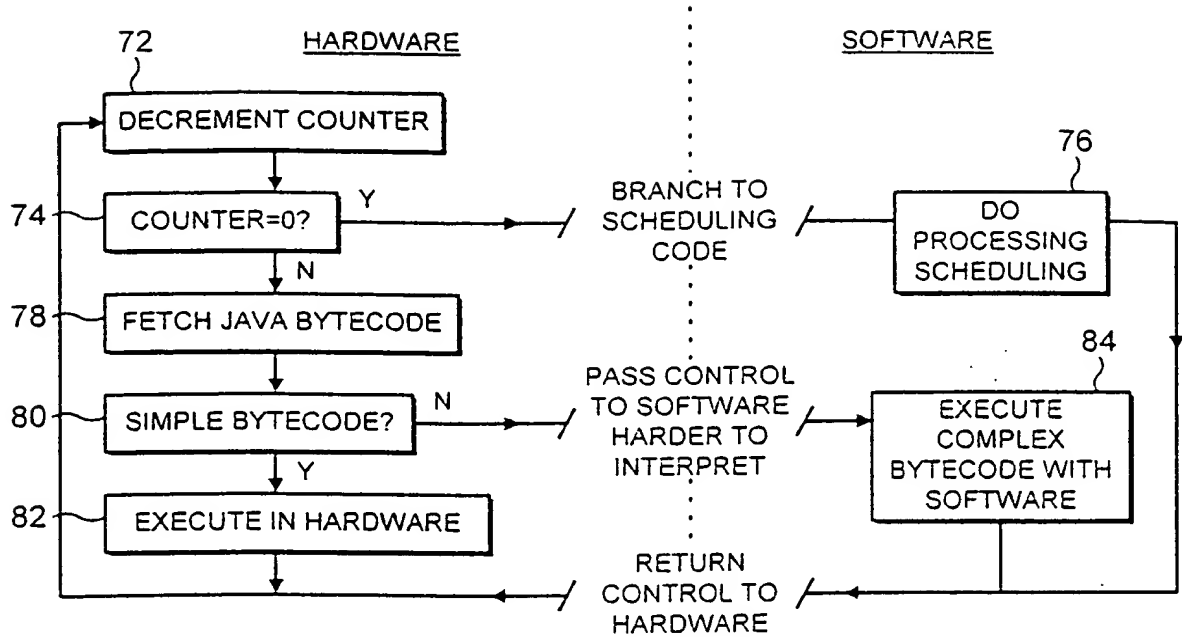


FIG. 10

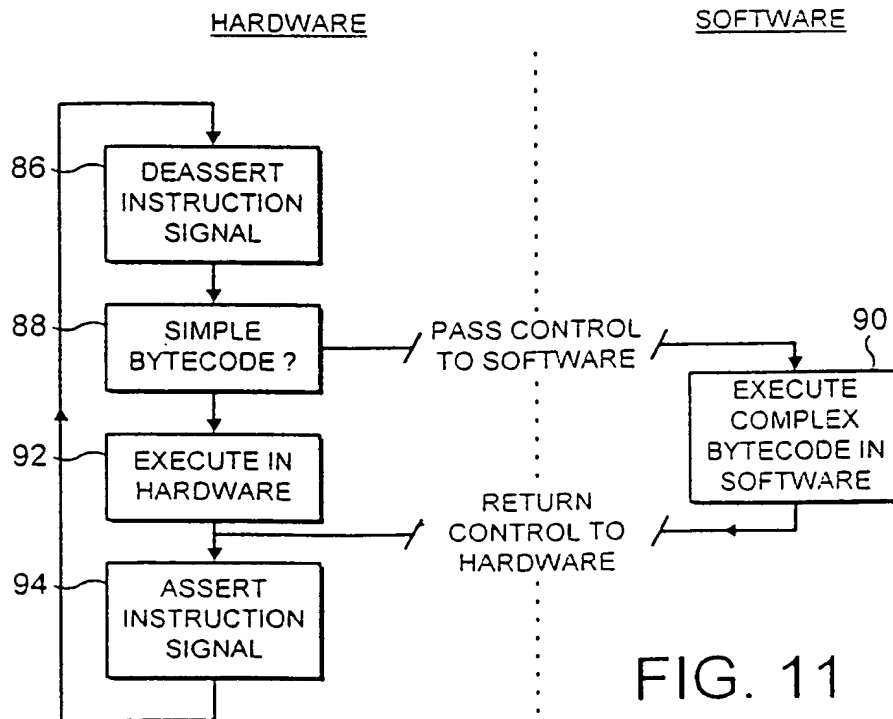


FIG. 11

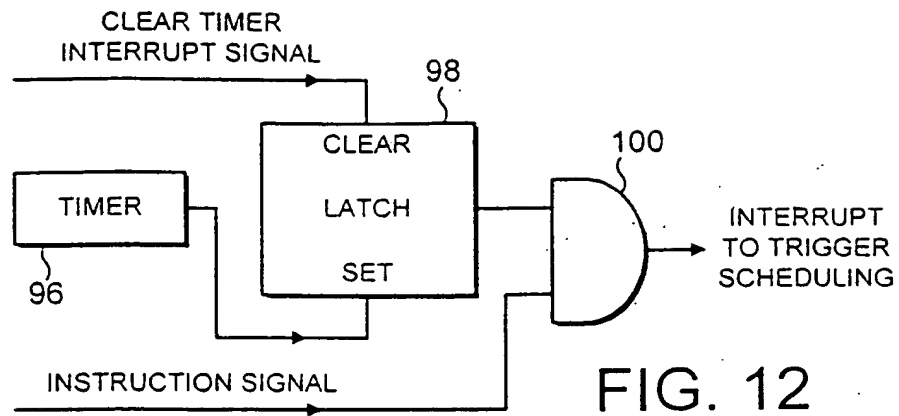


FIG. 12

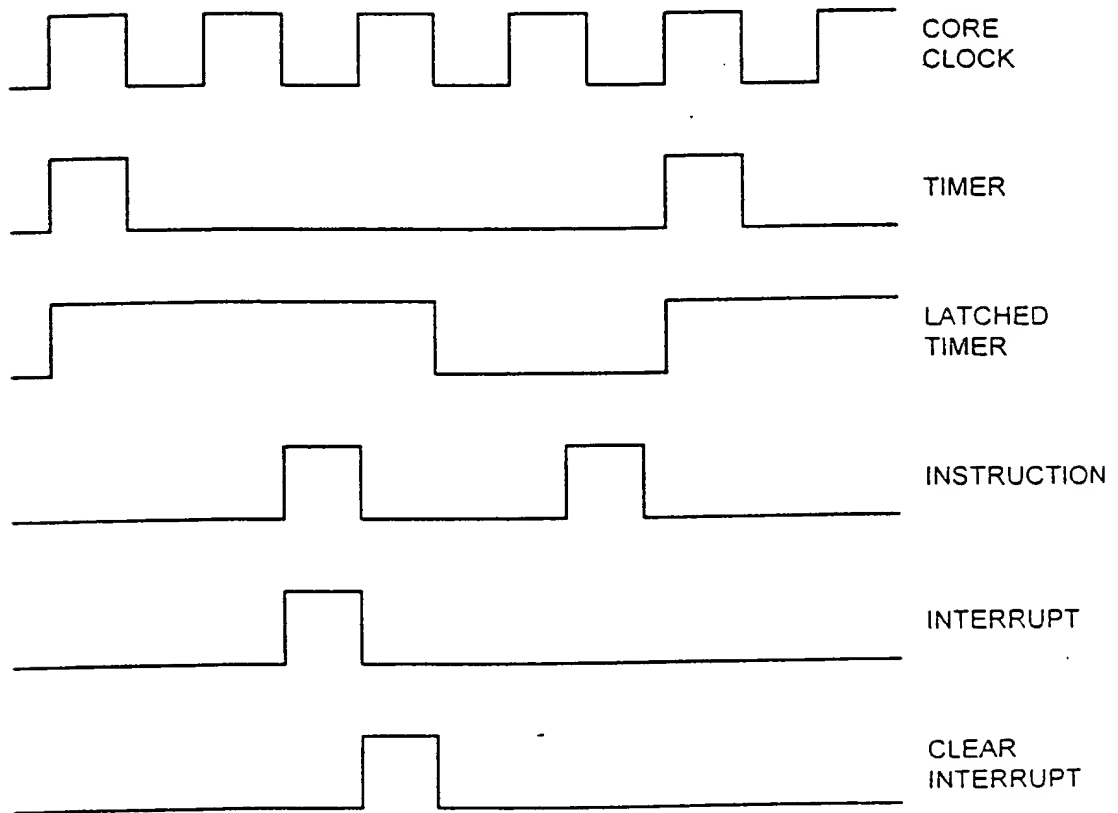


FIG. 13